Pioneer sound.vision.soul

Explore New Dimensions In Home Theatre

ELITE

ULTIMATE HOME THEATRE PRODUCTS

2005

ELITE

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In a world of exceptional A/V components, here's what it takes to be the best...

There are lots of audio/video components out there. Many of them are good, some even exceptional. But this is what it takes to be the very best:

- **A heritage of excellence** Pioneer has been at the forefront of home electronics for over 40 years. We began as a leader in home audio, and now we deliver the same passion and performance with our Elite plasma and DVD components.

- **Next-generation technology** With Pioneer's design and engineering power behind it, the Elite line has consistently pushed the technology envelope with key breakthroughs in consumer electronics displays, sources, and sound.

- **Uncompromising quality** The best optical glass. The most powerful processors. Industrial-grade parts and heavy-duty construction. No corners cut and no compromises. These are the ultimate components for today's high-resolution audio/video enthusiast.

- **Collaboration with the entertainment industry** We work with entertainment leaders, such as the legendary Air Studios in London, to learn from them and to apply key principles to our Elite line.

- **An appreciation of the creative process** Elite components are designed to reproduce movies and music as accurately and powerfully as their original creators intended.

The purchase of an award-winning Elite A/V component or system is a long-term investment in your happiness. We invite you to learn more about our products, and then visit an Elite dealer for a demonstration.

ELITE

PUREVISION PLASMA TELEVISIONS & MONITORS

Mind-bending depth and clarity

There are many brands of plasma displays, but only a few actual manufacturers. Pioneer leads this exclusive list, producing patented breakthroughs in Elite plasma technology year after year. The result: incredible video performance that you must see to believe.

PRO-1410HD

61" PureVision Plasma Monitor

ELITE COMPLETE 3YEAR WARRANTY

High Definition Plasma Monitor

- 1365 x 768 Native Resolution
- Noise Reduction
- Adjustable Colour Temperature 5 Settings w/6500 Degrees
- White Balance Adjustment
- 16:9 Aspect Ratio
- ISF C3 Compatible
- Encased Cell Structure
- Multiple Image Display Modes
- Advance Scalable P-I-P with any Source (NTSC, HD, PC)
- Multiple Step Digital Noise Reduction
- Advanced Colour Management
- PureCinema with 3:2 Pulldown
- HDMI Input
- Composite Video (BNC)
- Composite Video (RCA)
- S-video
- Component Video RCA
- Component Video RGBHV BNC Connectors
- D-Sub 15 Input
- RS-232C
- Table Top Stand (optional)
- Compatible Wall Mount Bracket (optional)

PURE vision PIONEER PLASMA DISPLAY

PRO-1120HD

50" PureVision Plasma Television

High Definition Plasma Televisions

- High Definition Resolution Wide XGA (1280 x 768p)
- 16:9 Aspect Ratio
- First Surface Pure Colour Filter
- ACE III (Advanced Continuous Emission III)
- Pure Drive Signal Processing
- Advanced PureCinema with 3:3 Pulldown
- Deep Encased Cell Structure
- 3 Step Digital Noise Reduction and MPEG Noise Reduction
- Split Screen or Picture in Picture Function for HDTV, NTSC and Various Other Signal Sources (NTSC, HD, PC)
- Colour Management
- Adjustable Colour Temperature 5 Settings w/6500 Degrees
- Ultra Bright 1,000 Cd/m2
- Colour Transient Improvement
- Dynamic Range Expander: Low, Mid, High, Off
- Natural Resize
- Integrated ATSC High Definition Tuner
- DCR (Digital Cable Ready) Tuner
- Includes Plasma Panel, Media Receiver, Smart Remote and 3 Meter Digital Connection System Cable
- HDMI Input x 2
- Compatible Wall Mount Brackets – PWM-503, PDWB-5003 (optional)
- ISFC3
- Energy Star Compliant
- SR/SR+ Control
- ISF Day/Night
- Optional Table Top Stand
- Optional Speakers

ELITE COMPLETE 3YEAR WARRANTY

PRO-920HD

43" PureVision Plasma Television

High Definition Plasma Televisions

- High Definition Resolution Wide XGA (1024 x 768p)
- 16:9 Aspect Ratio
- First Surface Pure Colour Filter
- ACE III (Advanced Continuous Emission III)
- Pure Drive Signal Processing
- Advanced PureCinema with 3:3 Pulldown
- Deep Encased Cell Structure
- 3 Step Digital Noise Reduction and MPEG Noise Reduction
- Split Screen or Picture in Picture Function for HDTV, NTSC and Various Other Signal Sources (NTSC, HD, PC)
- Colour Management
- Adjustable Colour Temperature 5 Settings w/6500 Degrees
- Ultra Bright 1,000 Cd/m2
- Colour Transient Improvement
- Dynamic Range Expander: Low, Mid, High, Off
- Natural Resize
- Integrated ATSC High Definition Tuner
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- HDMI Input x 2
- Compatible Wall Mount Brackets – PWM-503, PDWB-5003 (optional)
- ISFC3
- Energy Star Compliant
- SR/SR+ Control
- ISF Day/Night
- Optional Table Top Stand
- Optional Speakers

ELITE COMPLETE 3YEAR WARRANTY

ALL THIS TIME, UNPARALLELED ACCURACY

has been lurking just beneath the surface.

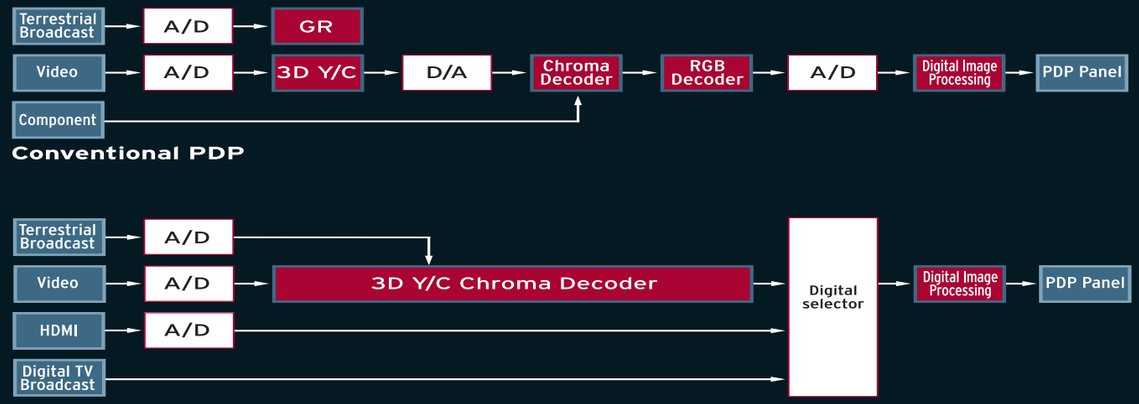
Introducing First-Surface Pure Color Filter – an exclusive Pioneer advancement that was discovered just below the surface. By optically coupling the Pure Color Filter to the plasma panel, we removed the gap between the glass and the filter. This reduces ambient light reflections, improves the contrast ratio in bright environments and delivers an undistorted, clearer picture. Pioneer Elite PureVision Plasmas combine this technology with 10-bit video processing, ACE II and deep-encased cell structures to provide you with the most accurate color reproduction possible.

It's all part of our unyielding pursuit of the perfect picture.

DESIGNED FOR TODAY AND TOMORROW

PURE DRIVE

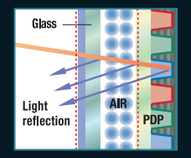
Pioneer is a true innovator at the forefront of plasma development. Our latest breakthrough is Pure Drive™, a Pioneer exclusive that pushes the limits of plasma display performance. Pure Drive keeps video signals entirely in the digital domain rather than converting them back and forth between analog and digital, as is typical with competing flat panel and projection technologies. This lossless, all-digital process allows far greater control of the signal and enables it to maintain all of its original depth. To bring the completely digital Pure Drive platform to market, Pioneer designed and developed six ICs as its core. The result is a technological foundation of excellence that will carry forward far into the future. (All models except PRO-1410HD)



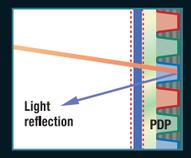
FIRST SURFACE PURE COLOUR FILTER

Ambient light — from windows, skylights, or room lighting — can easily reduce contrast and decrease picture quality. But what if you don't want to shut your blinds or dim the lights? The Elite PRO-1120HD and PRO-920HD employ a patented First Surface Pure Colour Filter, an image enhancing layer of film that's actually affixed to the glass panel covering the plasma cells. There's no space in between the film and the glass, reducing ambient light reflections and improving contrast ratio in bright environments by 20%. In addition, light is actually colour balanced as it passes through the filters, producing colour values that are closer to the true NTSC colour standard than other TVs or monitors. Plus, this unique filter features a wider internal "mesh" construction so that the video image does not reflect back into the panel from the filter as with many other models. Better technology, better performance: it's another reason Pioneer Elite Plasmas remain the industry reference standard.
(PRO-1120HD & PRO-920HD)

Conventional Glass Filter



First Surface Pure Colour Filter

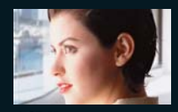


ADVANCED CONTINUOUS EMISSION (ACE II, ACE III)

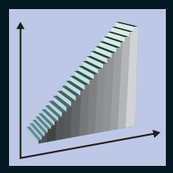
Some of the best movie moments occur during nighttime or low-light scenes, but unfortunately, most plasma panels can't properly reproduce all the important details. The problem: they're not capable of displaying all the necessary gradation steps as the scene gets darker, and at a certain point they just give up and turn everything black. Pioneer overcame this with a technology called Advanced Continuous Emission II. "ACE II" uses 10–bit processing to produce 1,024 gradation steps for each red, green, and blue cell, creating a palette of over a billion colours. This industry-leading technology gives you a wider range of hues and far more accurate colour reproduction, especially in those dark scenes. However, Pioneer 's new ACE III technology (PRO–1120HD, PRO–920HD) pushes the envelope even further, by reducing the visible steps between the levels of colour being viewed, making colour transitions smoother than before.

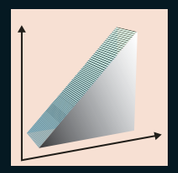
False Contours

Conventional PDP



ACE II

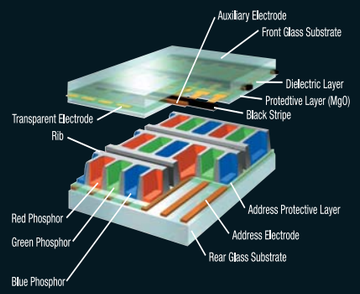




PERFORMANCE THAT WILL KEEP YOU ON THE EDGE OF YOUR SEAT

DEEP ENCASED CELL STRUCTURE

Plasma displays contain millions of coloured fluorescent lamps, each one contributing to the overall picture. Some manufacturers separate the lamps only with vertical walls, allowing the lamps' light and colour to blend in with one another. The results: inaccurate colours and a soft, diffused picture. Elite PureVision panels combat this by encasing each individual lamp in its own "cell", with walls on all sides so that light doesn't bleed into other cells. This design allows each lamp to deliver a highly concentrated beam of light, for truer colours, brighter images, and more realism on the screen.
(PRO-1410HD comes with standard depth Encased Cell Structure)



ADVANCED PURECINEMA 3:3 PULLDOWN

Film doesn't translate directly to a standard that TVs can process without some alterations. Movies are shot on film at 24 frames per second (fps), but TVs display images using the NTSC standard of 30 frames per second (or more precisely, 60 interlaced fields per second, or 60Hz). To display a movie, 6 fps must be added to the film's original 24 fps, to equal 30. This is done by examining each frame of film and creating three video fields from the first frame of film, two video fields from the second, then three again, and so on. This conversion process is called 3:2 frame pulldown.

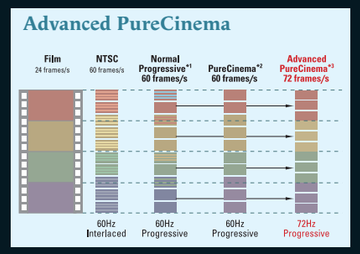
Today's 3:2 pulldown greatly improves NTSC reproduction of film-based material. A processor takes those 24 fps into a buffer, interpolates how to compose the 6 frames to be added, and re-sends the "new" 30 frames. This is exceptionally difficult to do and often results in uneven motion, especially during fast action.

Pioneer solved this by developing a custom, industry-exclusive IC that creates three full copies of each frame x 24 frames per second, for 72 progressive fps (72Hz). This is now 3:3 pulldown, which synchronizes perfectly with the frame rate of film. It's a great solution because it actually makes things simpler: the need of a buffer is eliminated and the processors aren't forced into guesswork. Now, film-based material on DVD, videotape, and even regular TV will match the smooth, natural reproduction you'd see in a theater. Elite plasma displays are the only models currently on the market to have this feature.
(All models except PRO-1410HD)

10-BIT 3-D Y/C SEPARATION

NTSC (analog) composite video images are comprised of two signals, luminance (brightness information, expressed as "Y") and chrominance (colour information, expressed as "C"). When analog composite video is played back, the Y and C signals must be separated or they'll interfere with one another. The result is video noise in the form of "dot crawl", seen as dots marching along the edges of images, like ants. To combat this, we use a true 10-bit, 3-dimensional motion-adaptive Y/C comb filter — the finest available — which eliminates dot crawl and produces a beautiful, film-like image.

Advanced PureCinema



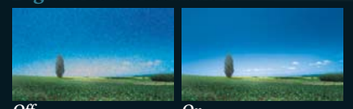
I/P CONVERSION

Even the most common plasma displays contain an I/P converter, a chip that turns interlaced (I) images into progressive (P) images. But performing that conversion with total precision and without visible distortion requires very high-level processing. When you're at a store looking at plasma displays, watch for a moving image that contains a straight edge such as a pillar or fence. As motion continues, lesser plasmas will exhibit a jagged effect along the edges. To eliminate this effect, an Elite custom IC performs high-grade I/P conversion, so straight edges will really look straight and clean, like they're supposed to.

DIGITAL AND MPEG NOISE REDUCTION

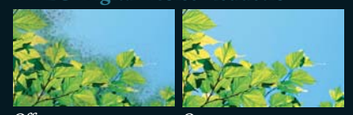
Digital video and MPEG video both use compression that can create unwanted noise. "Digital noise" often appears as a checkerboard pattern on solid images like the sky or skin. "MPEG noise", also known as "mosquito noise", appears as a fuzziness around the edge of an image. Elite plasma panels greatly reduce both types of noise, for a higher level of realism.
(All models except PRO-1410HD)

Digital Noise Reduction



Off *On*

MPEG Digital Noise Reduction



Off *On*

NATURAL RE-SIZE

Many plasma displays allow you to select a screen mode best suited to the material being viewed. For example, when watching a regular 4:3 TV show on a 16:9 widescreen monitor, the image can be stretched to fill the entire screen. But that stretching process often causes problems such as blocky, fuzzy, or over-stretched images. Pioneer's industry-exclusive Natural Re-Size function re-shapes the picture and allows it to maintain a natural appearance, without adding artifacts that deteriorate picture quality.
(All models except PRO-1410HD)

DYNAMIC RANGE EXPANDER (D.R.E.)

So, you're watching a movie and an actress with jet-black hair is wearing a bright white shirt. It's a high-contrast situation that gives nearly all plasma displays problems. Usually, if her hair colour is a true black, her shirt will appear as a slightly dull off-white. Or, her shirt will be pure white but her hair isn't a true black. And, of course, it doesn't help to adjust your brightness because either the hair or the shirt will lose its true value. Enter Dynamic Range Expander (D.R.E.), which raises the values of both lights and darks, noticeably improving the contrast ratio and creating a more vivid presentation.
(All models except PRO-1410HD)

Dynamic Range Expander

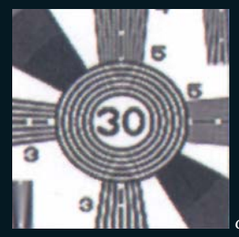
Off

On

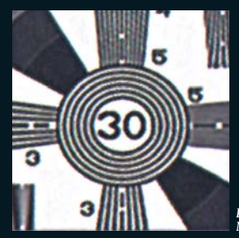
NATURAL ENHANCER

Another Pioneer technology that deliver a stunningly sharp picture is Natural Enhancer, an industry first. On any source, analog or digital, Pure Drive-powered Natural Enhancer cleans up those wavy moiré ("moray") patterns and enhances the contrast at the edges of images, for a clean, detailed picture.
(All models except PRO-1410HD)

Natural Enhancer



Conventional PDP



Pioneer's Natural Enhancer

DIGITAL COLOUR TRANSIENT IMPROVEMENT (C.T.I.)

Ordinary plasma displays have a hard time accurately rendering a coloured image laying over another coloured image — for example, a man in a blue jacket standing against a red wall. The usual result is a dithered pattern and an inaccurate combination of colours where the two images intersect. Digital Colour Transient Improvement (C.T.I.), a Pioneer Pure Drive development, smooths out edges of colour images so that they're more distinct, and colours are more precisely reproduced.
(All models except PRO-1410HD)

DIGITAL CHROMA DECODER

Colour noise is another form of analog video interference, seen as speckled imperfections within solid colours on your screen. Select Elite models feature a 10-bit Digital Chroma Decoder to reduce noise and provide better frequency response, for pure, clean colours.

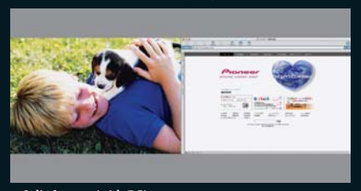
COLOUR MANAGEMENT

Colour Management enables greater control of both primary and secondary colours, selectively boosting or scaling back values to match the actual image without affecting other colours on the screen. This results in far more accurate colour reproduction. Two examples: Colour Management will enhance a flowering tree without distorting the blue sky behind it; and facial skin tones will be reproduced more accurately without discolouring the subject's clothing.

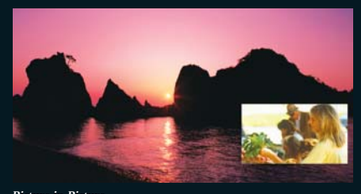
MULTI-WINDOW DISPLAY

OK, admit it: sometimes you want to watch two shows at the same time. Picture-in-Picture (one full-screen image with a smaller image inset) has been around a long time, but now Multi-Window Display takes dual-material viewing to new levels: it lets you display any combination of HDTV, NTSC, and even a computer image, either as twin images (50/50 split screen) or as Picture in Picture. So, watch pro-football on HDTV alongside fantasy football from your PC. Two college bowl games, two music specials….OK, you get the picture.*

Multi-Window Display



2 Split Screens (with PC)



Picture-in-Picture

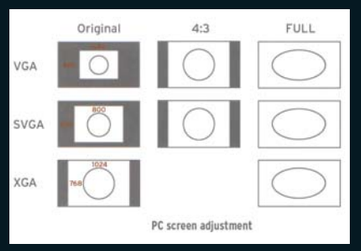
A MULTIMEDIA MONITOR FOR PC AND MAC

An Elite PureVision plasma display makes an exceptional monitor for a PC as well as a MAC with a DVI adapter. The high-definition native resolution of our 61" model is 1365 x 768; on 50" models it's 1280 x 768; and on 43" models it's 1024 x 768. Charts, graphs, the Web, and full-motion DVDs will all look clean and crisp. And of course you can display more than one source simultaneously, using either Picture-in-Picture or 50/50 split screen.*

*In order to maintain longevity, certain precautions must be taken when using a computer interface with the television.

SELECTABLE SCREEN MODES

Whether you're watching television, a DVD, or an extreme wide-screen movie, all Elite PureVision models enable you to adapt the panel's image to the source, for optimal viewing.
(All models except PRO-1410HD)



MEDIA RECEIVER AND SPEAKERS

The Elite PRO-1120HD and PRO-920HD are plasma televisions that receive and can be matched with stereo speakers, and a colour-matched swivel stand.

The media receiver provides easier on-wall installation and allows easy connection of current and future video components.

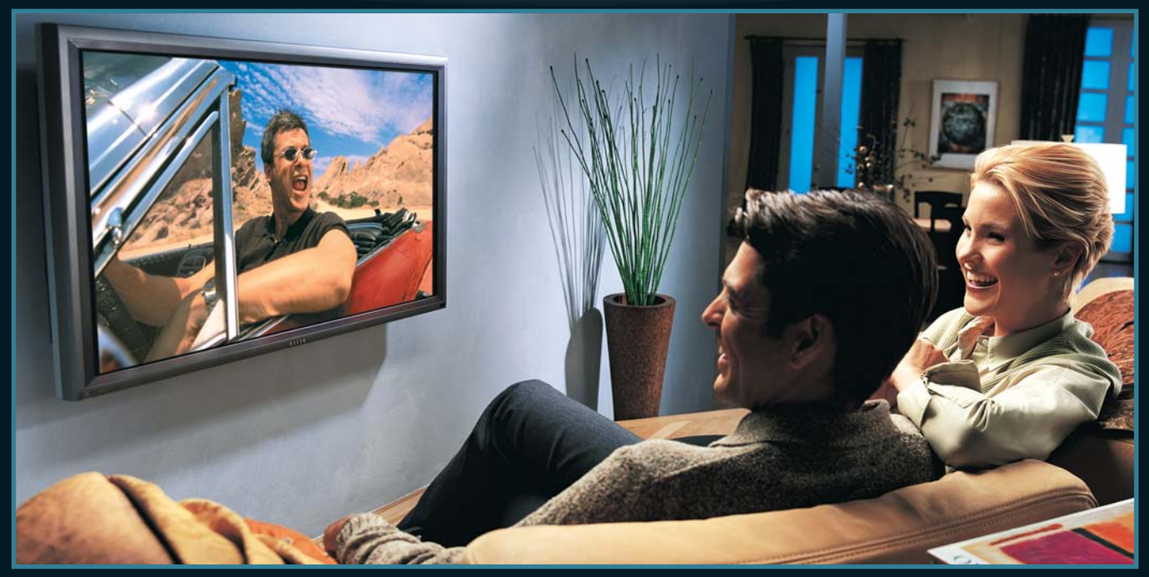
This slim, outboard component delivers both terrestrial broadcast ATSC (digital), NTSC (analog) and DCR™ programming (digital cable ready), with connections for satellite, cable and a computer. It offers connectivity for a range of video and audio components, including the new HDMI (High Definition Multimedia Interface, discussed on page 6), plus DV control and playback.

The media receivers included with the PRO–1120HD and PRO-920HD feature a built-in unidirectional digital cable DCR™ tuner with CableCARD™ slot and includes DTV closed captioning.

Speaker System: Contains newly designed 2-way speakers with improved drivers and amplifier. These speakers deliver a full, rich sound both for front-channel movie and TV viewing, as well as for surround audio modes. The speakers are side-mounted, either flush or recessed.

Stand: New, stylish tabletop stand with matching black finish. It swivels 20 degrees for optimal viewing convenience.

MIND-BENDING DEPTH AND CLARITY, RIGHT IN YOUR TV ROOM



HDMI CONNECTIVITY

All Elite PureVision plasma displays feature a new type of digital input called a "High Definition Multimedia Interface", or HDMI. This high-bandwidth consumer interface allows huge amounts of very high quality data — such as uncompressed HDTV signals — to be input at high rates of speed, up to 5 GBps. This leaves a lot of spare capacity for future applications such as an uncompressed DVD movie, or DVD-Audio and SACD audio recordings.

Another big advantage of HDMI is its simplicity. It provides a straight digital path from point A to point B without affecting the signal in any way. Plus, it doesn't perform unnecessary compression and re-compression steps, so the signal remains in a pure, digital state. This lossless process maintains a higher level of image quality compared to other connection systems.

HDMI offers plug and play capability and accommodates all of the current ATSC digital television formats. Plus, it supports up to eight channels of audio. And despite HDMI's huge bandwidth power and its ability to accommodate both audio and video, the plug itself is user-friendly and substantially smaller than the computer-based DVI plug. This can be a big advantage if the shortest distance from your digital cable box to your plasma display is straight through a wall.

FROM NTSC TO HIGH DEFINITION

With all Elite PureVision plasma displays, you'll be able to watch NTSC (analog) broadcasts, plus three types of ATSC digital broadcasts: Standard-, Enhanced-, and High-Definition. Because Elite plasma panels feature true high-definition native resolution, everything you watch will be maximized for the highest quality, whether it's high-definition or NTSC. In fact, all Elite panels automatically up-convert video from any source, including regular TV, to the panels native resolution.

Resolution at a Glance

BEST	**HD:** HIGH-DEFINITION	720p (progressive) or 1080i (interlaced) minimum *Digital Transmission*	About 5x better than conventional TV
GOOD	**ED:** Enhanced-Definition TV	480p (progressive) or 480i (interlaced) *Digital Transmission*	About 2x better than conventional TV
O.K.	**SD:** Standard TV Conventional TV	480p (interlaced) *Analog Transmission*	Standard for past 60 years

ISF MODE: CUSTOMIZED PERFORMANCE FOR YOUR HOME

Right out of the box, Elite plasma TVs and monitors deliver an exceptionally vibrant, detailed picture. And now, these models offer a way to customize the viewing experience for your very own home. Through our relationship with the renowned Imaging Science Foundation, Inc. (ISF), all Elite plasma models comply with the ISFs Custom Calibration Configuration (C3) standards, enabling them to be performance-optimized for the actual room in which they are placed. This means that your high-definition plasma can be fine-tuned at a customized level of calibration that was previously impossible.

Here's how it works: as an optional service arranged through your Elite dealer, a trained professional will calibrate contrast, tint, sharpness, colour levels, and other parameters to best fit your exact viewing environment. Room layout and size, ambient light (for both day and night viewing), and other conditions that affect picture quality are measured and factored in. The professionals qualified to perform these calibrations have gone through extensive ISF-designed training, and they use sophisticated calibration equipment and software that meet strict ISF requirements. Once the ISF C3 calibrations are made to your TV, you'll enjoy unparalleled picture accuracy customized for your home. And should you ever want to revert back to the TV's original settings after the set is calibrated, you can. The plasma's ISF Mode allows you to toggle back and forth if you wish.

UNIFORM WIDE ANGLE VIEWING

Elite plasma panels let you sit almost anywhere in the room without missing a pixel. They deliver a consistent, uniform image whether you're lying on the floor, standing off to the side or seated at the end of your couch. This image uniformity enables a higher level of colour and brightness compared to rear projection monitors and LCD panels.

BLACK STRIPE COATING

Thinking of placing your Elite PureVision plasma panel in a well-lit room? Not a problem: Pioneer employs a patented black coating between each row of plasma cells, absorbing the light hitting the panel. This reduces reflections coming back to your viewing position and nearly doubles the effective contrast. You'll see blacker blacks and a more detailed picture, regardless of light conditions.
(All models except PRO-1410HD)

THE ULTIMATE DVD PLAYERS

A new level of sight and sound

If you're looking for the pinnacle of home theatre, then reach for an Elite DVD player. With advanced audio features such as our i.Link advanced resolution digital audio interface, and our exclusive PureCinema Progressive Scan technology, we'll keep you on the edge of your seat with a spectacular performance every time.

DV-59AVi

DVD Player With Multi-Channel DVD Audio And SACD Playback

Ultimate DVD Players

- HDMI - High Definition Multimedia Interface (Video, DTS and Dolby Digital Output, LPCM 2ch)
- Two Dimensional Resolution Expander IC (Digital Direct Pixel Drive)
- 14-bit/216 MHz DAC for Video Output Processing
- PureCinema Progressive Scan (3:2 Pulldown)
- Component Frame DNR PRO (VQE8)
- Super Fine Focus Digital Filter (for 540 Lines of Horizontal Resolution)
- Video Adjust (VQE8)
- 192kHz 24bit DAC, Burr Brown PCM1738EG-3 Chipsets (3) for all Audio Processing
- Pure Audio On/Off
- i.LINK - Advanced Resolution Digital Audio Interface (IEEE-1394)
- Legato Pro / Hi-bit Processing (Front Channels)
- Multi-Channel DVD Audio and SACD (Super Audio Compact Disc) Playback
- DVD-RW Playback (Compatible w/CPRM), DVD-R Playback Capability
- MP3 Playback Compatibility
- Triple-Layered Chassis
- Bass Management
- Trick Play Processing
- Component Video Output (DVD, Video CD)
- Virtual Dolby® Digital and SRS TruSurround
- Dolby® Digital and dts® Digital Outputs
- Twin Wave Laser Pickup
- Advanced GUI and Set-Up Navigator

ELITE COMPLETE 3YEAR WARRANTY

DV-47Ai

DVD Player With Multi-Channel DVD Audio And SACD Playback

Ultimate DVD Players

- PureCinema Progressive Scan (3-2 Pulldown)
- 108MHz/12bit Video DAC for High-quality DVD Pictures
- Twin-Wave Laser Pickup for CD/Video CD/CD-R/CD-RW/DVD-R/RW (DVD Video Format) Playback
- Super-Fine Focus Filter with 4:4:4 Video Up-Sampling
- 16 Video Parameter Adjustments w/3 User Memories (Progressive Motion, PureCinema (On, Off, Auto),YNR, CNR, Mosquito NR, Block NR, Sharpness High, Sharpness Mid, Detail, White Level, Black Level, Gamma, Black Setup, Hue, Chroma Level, Chroma Delay)
- 3 Factory Video Settings (CRT/PDP/Professional)
- Pioneer Exclusive Viterbi Error Correction with Accurate Digital Servo for Superior Reading Accuracy
- Trick Play Processor for Smooth Scanning
- i.LINK (Advanced Resolution Digital Audio Interface) Audio Output
- Legato Pro/Hi-bit Processing (Front Channels)
- DVD Audio Playback
- Multi-channel SACD Playback (1 bit)
- MP3 Playback Capability
- Bass Management
- Triple 192kHz/24-bit (3x2 Channel) Audio DAC's for Superior Sound Quality
- Legato Pro Conversion
- Dolby® Digital and dts® Digital Outputs
- Dolby® Digital and dts® Decoders
- New Advanced GUI (Graphic User Interface) with Set-up Navigator
- Jog and Joystick Remote with Glow-in-the-Dark Keypad
- Double-Layered Chassis for Chassis Stability

ELITE COMPLETE 3YEAR WARRANTY

PIXEL CONVERSION IC
(Two-Dimensional Resolution Expander IC)

The more pixels, the better the picture. The DV-59AVi contains a Pixel Conversion IC that automatically increases the signal's pixel count from interlaced 480 x 720 to high-definition progressive 1280 x 720 or 1920 x 1080i. Here's how: the signal generated by the MPEG decoder passes through the IC, where the pixel count is increased. The IC actually looks at pixel information from the previous and next film frame before the resolution is increased, ensuring an extremely accurate viewing experience. Not all pixel converters are created equal; this is a great one.

TRIPLE-LAYERED CONSTRUCTION

To further isolate the DV-59AVi's components from vibration, Pioneer designed a triple-layered construction with a stainless steel stabilizing plate underneath the unit. This design improves signal-reading accuracy, for higher-quality sound and video reproduction.

DIGITAL TRANSMISSION

A next-generation DVD player must output a signal in its purest form and with high speed, for optimal quality. Select Elite DVD players do this in two ways:

1) HDMI. The DV-59AVi features a new type of all-digital output called a High Definition Multimedia Interface, or HDMI. This high-bandwidth interface allows huge amounts of high-quality data — both video and audio — to be output at high rates of speed, up to 5GBps. HDMI doesn't perform unnecessary D-A and A-D conversions, so the signal remains in a pure, digital state. This ensures the highest possible quality level, with improved colour reproduction and picture detail. HDMI also offers convenient plug-and-play capability and accommodates all of the current ATSC digital television formats and up to eight channels of digital audio.

2) i.LINK. In order for DVD players to deliver next-generation digital signals such as DVD-Audio and SACD, new methods of transmission had to be developed. i.LINK connectivity, a.k.a. IEEE1394, is an advanced digital interface that's become the industry standard for transmitting these high-resolution multi-channel recordings. Plus, you can simplify your system: what used to take up to six different connections to achieve, i.LINK handles with a single digital connection. This enables two-way communication between components such as receivers and DVD players. (DV-59AVi and DV-47Ai)

DV-45A

DVD Player With Multi-Channel DVD Audio And SACD Playback

Ultimate DVD Players

- PureCinema Progressive Scan (2-3 Pulldown)
- 54MHz/10bit Video DAC for High-Quality DVD Pictures (Analog Devices)
- Super-Fine Focus Filter with 4:4:4 Video Up-Sampling (Progressive Only)
- Video Parameter Adjustments w/ 3 User Memories, Fine Focus, Contrast, Sharpness, Brightness PureCinema (On, Off, Auto), Hue, Chroma Level
- Parallel S-Video / Composite Outputs
- Pioneer Exclusive Viterbi Error Correction with Accurate Digital Servo for Superior Reading Accuracy
- Still Step Play Forward and Reverse
- Slow Motion Playback
- DVD Audio Playback
- SACD Multi-Channel Playback (1 bit)
- MP3 Playback Capability
- Twin-Wave Laser Pickup for: CD/Video CD/CD-R/CD-RW/DVD-R/DVD-RW Playback (Recorded in Video Mode)
- Triple 192kHz/24-bit (3x2) Audio DAC's for Superb Sound Quality (Burr Brown)
- Dolby® Digital and dts® Digital Outputs
- Dolby® Digital and dts® Decoders
- Video Off
- Bass Management

ELITE COMPLETE 3YEAR WARRANTY

DVD PLAYERS THAT PUT YOU IN CONTROL

Elite DVD players enable you to make adjustments to your taste, with select models (DV-59AVi, DV-47Ai, DV-45A) even offering three user memories to recall your settings.

- Progressive Motion: Maximizes the Progressive circuit for the type of video-based DVD you're watching: SLOW for mostly static pictures, FAST for fast-moving images.
- Component Frame Digital Noise Reduction (DNR): Independently reduces noise in the luminance and colour signals.
- Mosquito Noise Reduction: Reduces distortion concentrated near the edges of moving objects. (DV-47Ai)
- Block Noise Reduction: Reduces noise associated with the digitization process used in DVD production. (DV-47Ai)
- Black/White Levels: Lets you independently adjust the black and white levels for optimal contrast.

PURECINEMA PROGRESSIVE SCAN

Pioneer PureCinema's advanced circuitry achieves high conversion accuracy by re-creating the original frames of a film and displaying them in a 3-2 order (called 3-2 pull-down), matching the output to NTSC television standards. This creates natural, film-like images that are smooth and virtually free of bothersome artifacts on moving objects. (DV-59AVi, DV-47Ai, DV-45A, and DV-F07)

DVD-AUDIO AND SACD

DVD-Audio (DVD-A) and Super Audio CD (SACD) represent the future of audio on disc: high-density, high-resolution music that is miles ahead of CD. The music is bigger, more detailed, and more open, and you will definitely hear the difference. (DV-59AVi, DV-47Ai, DV-45A)

Here are the key advantages of DVD-Audio and SACD:

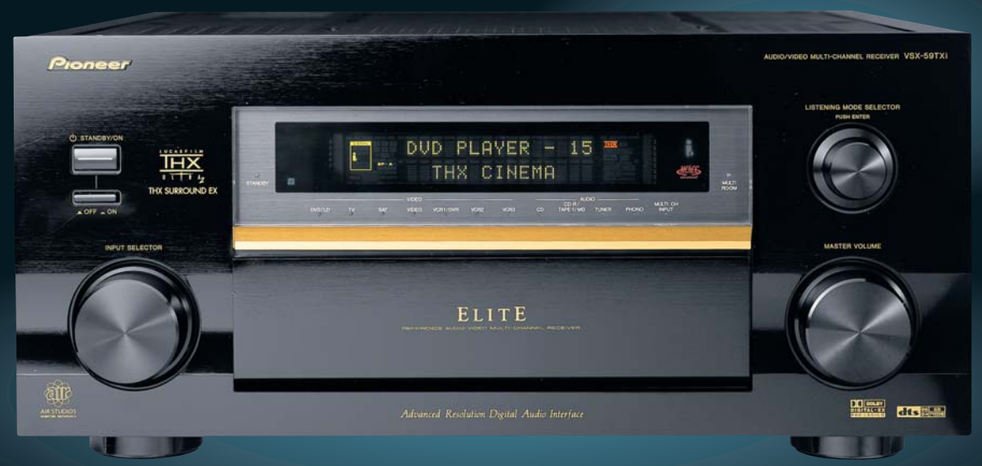
- More data. They're encoded differently, but discs of both formats can hold a huge amount of data, far more than an Audio CD. DVD-As can hold 4.7GB of data, and SACDs about 4.0GB. Rather than use all this digital real estate just to add more CD-quality songs, it's being used for…..
- Better music. This is the key. With all that data capacity, music can be formatted into two channels (stereo) at a 192kHz, 24-bit rate, which may be the highest level of quality you will hear in your lifetime. Or into six channels at a 96kHz, 24-bit rate, creating a full-octane, 5.1 surround field that swirls around you.

ELITE

AUDIO/VIDEO RECEIVERS

The heavy weights of home theatre

Elite A/V receivers offer next-generation connectivity for a wide range of components. Heavy-duty construction. Decoding for all the key surround sound formats. And exceptional power for up to seven channels. They even provide professional-level acoustic calibration for any room. And of course, they deliver the pure sound reproduction that puts them in a class by themselves.



VSX-59TXi

THX Ultra 2 Certified 7.1 Channel A/V Receiver

High Definition Plasma Monitor

- 160 Watts x 7 @ 6 Ohms
- THX ULTRA 2
- Advanced Direct Energy MOSFET Amplification
- Symmetrical Power Train Design
- High-Regulation Type Huge Transformer with Audiophile-Quality Capacitors (33000µF x 2)
- i.LINK – Advanced Resolution Digital Audio Interface with PQLS jitter-free technology
- SACD Gain Boost & 176kHz Conversion
- WMA 9-Pro Audio Decoder
- Dolby® Digital-EX and DTS-ES/96/24
- 96kHz/24Bit Processing THX Ultra 2
- 96kHz/24Bit Processing Dolby® Pro-Logic IIx & DTS NEO:6
- AIR Studios Sound Tuning
- Advanced MCACC with Adjustable-Envelope EQ
- X-Curve Acoustic Compensation
- PC Connection via RS232C for MCACC 3-D Colour Display and Printout
- Advanced Cinema and Advanced Concert
- Ultra Digital Core Engine with Twin Dual Processing Sharc + Motorola 48-Bit Processing DSP
- Burr Brown PCM1704 Hi-End Quality 192kHz / 24-Bit D/A x 8
- Universal Video Conversion
- Wide-Band Component Video Switching (100MHz)
- 8 Digital Inputs (3 Coax, 5 Optical)
- USB Multi-Channel Digital Audio Input for PC Audio
- Multi-Room and Source Control with 12 Volt Trigger x 2
- RS232C Interface for 3rd Party Control
- SR I/O for Easy Installation
- Copper-Plated 3-D Space Frame Construction
- Triple-Layered Chassis with TAOC Insulator
- High-End Grade Solid Gold-Plated Speaker Terminals
- Versatile Speaker Configuration
- LCD Touch Panel Rechargeable Sleek Remote

ELITE COMPLETE 3YEAR WARRANTY

VSX-56TXi

THX Select Certified 7.1 Channel A/V Receiver

Audio/Video Receivers

- 110 Watts x 7 @ 8 Ohms
- Internal BiAmp Capable
- Advanced Direct Energy MOSFET Amplification
- Symmetrical Power Train Design
- Bifilar-Winding High-Regulation Type Large Transformer with Audiophile-Quality Capacitors (27000µF x 2)
- i.LINK - Advanced Resolution Digital Audio Interface with PQLS jitter-free technology
- SACD Gain Boost & DSD Direct Conversion
- THX Select Certified
- Dolby® Digital EX & Pro-Logic IIx
- DTS-ES / 96/24 / Neo:6
- AIR Studios Sound Tuning
- Advanced MCACC with Adjustable-Envelope EQ
- PC Connection via RS232C for MCACC 3-D Colour Display and Printout
- Advanced Cinema and Advanced Concert
- Virtual Surround Back
- Twin Motorola 48-Bit DSP Digital Core Engine
- Universal Video Conversion
- 192KHz / 24-Bit DAC (Delta Sigma type)
- 10 AV Inputs
- 5 Digital Inputs
- USB Digital Audio Input for PC Audio
- Wide-Band Component Video Inputs x2 (100MHz)
- Multi-Room & Source, RS232C, 12V Trigger / IR I/O Ports
- SR+ Two-Way Communication with Pioneer Plasma for Easy Installation
- SR I/O for Easy Installation
- Versatile Speaker Configuration
- High-End Grade Solid Speaker Terminals
- 3-D Space Frame Construction
- TAOC Insulators / Double Layered Chassis
- 2-Line LCD Learning Remote with Multi-Operation

ELITE COMPLETE 3YEAR WARRANTY

VSX-54TX

THX Select Certified 7.1 Channel A/V Receiver

Audio/Video Receivers

- 110 Watts x 7 @ 8 Ohms
- Internal BiAmp Capable
- Advanced Direct Energy MOSFET Amplification
- Symmetrical Power Train Design
- High-Regulation Type Large Transformer with Audiophile-Quality Capacitors (22000µF x 2)
- THX Select Certified
- Dolby® Digital EX & Pro-Logic IIx
- DTS-ES / 96/24 / Neo:6
- AIR Studios Sound Tuning
- Advanced MCACC with Adjustable-Envelope EQ
- PC Connection via RS232C for MCACC 3-D Colour Display and Printout
- Advanced Cinema and Advanced Concert
- Virtual Surround Back
- Twin Motorola 48-Bit DSP Digital Core Engine
- Universal Video Conversion
- On-Screen Display
- 192KHz / 24-Bit DAC (Delta Sigma type)
- 10 AV Inputs
- 5 Digital Inputs
- Wide-Band Component Video Inputs x2 (100MHz)
- Multi-Room & Source, RS232C, 12V Trigger / IR I/O Ports
- SR+ Two-Way Communication with Pioneer Plasma for Easy Installation
- SR I/O for Easy Installation
- Versatile Speaker Configuration
- Banana-Plug-Ready Speaker Terminals
- 3-D Space Frame Construction
- Trans Stabilizer
- Learning Remote with Multi-Operation

ELITE COMPLETE 3YEAR WARRANTY

VSX-52TX

THX Select Certified 7.1 Channel A/V Receiver

Audio/Video Receivers

- 110 Watts x 7 @ 8 Ohms
- Internal BiAmp Capable
- Advanced Direct Energy MOSFET Amplification
- Symmetrical Power Train Design
- High-Regulation Type Large Transformer with Audiophile Quality Capacitors (15000µF x 2)
- THX Select Certified
- Dolby® Digital EX & Pro-Logic IIx
- DTS-ES / 96/24 / Neo:6
- Precision Auto MCACC with Adjustable-Envelope EQ
- Advanced Cinema and Advanced Concert
- Virtual Surround Back
- Motorola 48-Bit DSP Digital Core Engine
- Universal Video Conversion
- On-Screen Display
- 192KHz / 24-Bit DAC (Delta Sigma type)
- 8 AV Inputs
- 5 Digital Inputs
- Wide Band Component Video Inputs x2 (100MHz)
- Multi-Room & Source, RS232C, 12V Trigger / IR I/O Ports
- SR+ Two-Way Communication with Pioneer Plasma for Easy Installation
- Versatile Speaker Configuration
- Banana-Plug-Ready Speaker Terminals
- 3-D Space Frame Construction
- Trans Stabilizer
- LCD Learning Remote
- Pioneer System Remote

ELITE COMPLETE 3 YEAR WARRANTY

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Some discs may not be playable due to different recording formats or physical condition of the disc at the time of recording or playback.

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Our Audio Expertise Comes Through Loud And Clear

Advanced Multi-Channel Stereophonic Philosophy

With high-resolution content becoming more available, receivers must be able to reproduce detailed information with high precision. With this in mind, Pioneer created its Advanced Multi-Channel Stereophonic Philosophy based on experience gained at top professional recording studios, including AIR Studios in London. The key principles of this philosophy are:

Highest Quality Equipment

The use of the highest quality parts and superior design and construction ensure the ultimate in sound quality.

Precise Sound Reproduction

Pioneer Multi-Channel Acoustic Calibration Circuit (MCACC) automatically calibrates your speaker system's sound characteristics to create professional-level audio for your media room.

Professional Expertise

Final sound tuning by AIR Studios engineers ensures that Elite receivers can provide the highest sonic performance. In addition, THX certification lets the artistic qualities of the sound shine through.

The tangible result of Pioneer's Advanced Multi-Channel Stereophonic Philosophy is exceptional fidelity, both in traditional stereo and multi-channel recordings.

MCACC (Multi-Channel Acoustic Calibration System)

Just as professional dubbing studios need to be fine-tuned for optimal performance, so do home theater systems. The question is: how can you optimize your home theater system without an expert's help?

The answer: Pioneer's Multi-Channel Acoustic Calibration System, or MCACC. Based on years of research at our R&D center, MCACC is the world's first fully automated acoustic calibration system. It evaluates the acoustic characteristics of your media room and calibrates the speaker system accordingly, for professional-level sonic performance. It works in any room, regardless of shape or size.

Measurement and Calibration

MCACC sends out pink noise signals and test tones that are read by a sensitive calibration microphone, measuring the response from each of the multi-channel speakers in your system. MCACC then performs these five processes:

- Checks for the absence or presence of connected speakers.
- Detects speaker size (large or small)
- Equalizes for the distances between speakers.
- Neutralizes any differences in sound pressure level.
- Performs frequency equalization to avoid phase-shift, which deteriorates sound quality.

There are two separate frequency equalization modes: one for flat curve (All-Channel EQ) and the other for aligning to the front left and right speakers (Front Alignment EQ). Once set-up is complete, you can select one of these two EQ settings.

- All-Channel EQ equalizes all speakers, creating a much flatter frequency response.
- Front Alignment EQ doesn't make any adjustment for the main front left and right speakers but equalizes the others (center, surround right and left, surround-back right and left) to match the tonal character of your main speakers.

Advanced MCACC

In addition, the VSX-59TXi, VSX-56TXi, and VSX-54TX incorporate a new and improved Advanced MCACC system which provides even higher precision. By applying Time Aligned Dynamic Acoustic Treatment, Advanced MCACC can distinguish between direct sound and room reverberations.

Using a PC connected to the units' RS232 output, you can actually view 3-dimensional graphics of each channel's frequency response — your room's acoustic signature.

Theater Sound, Right At Home

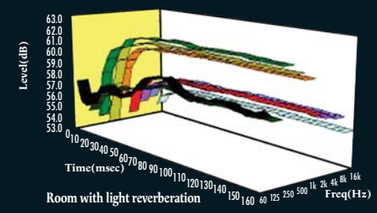
The benefits of MCACC can be significant and very audible. Here are just a few:

- A more natural sonic mix between speakers, and a much wider sound stage.
- A true 3-dimensional sound field, especially from surround speakers.
- A longer reverb that's more like the original soundtrack.
- More sonic detail. Certain sounds which were previously masked by other sounds can be heard for the first time on your system.

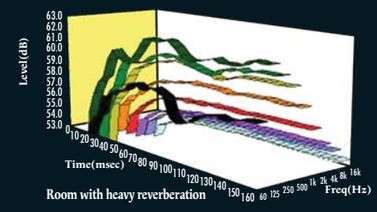
With MCACC, you can have the ultimate home theater — one that is customized for your own home.

MCACC Multi-channel Acoustic Calibration System

Room Frequency Response by Channel

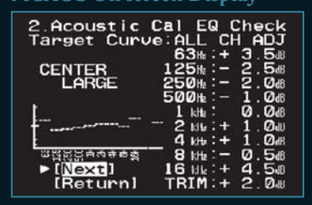


Room with light reverberation



Room with heavy reverberation

MCACC On-screen Display



Processing Power

To carry out heavyweight tasks like MCACC, all Elite receivers employ professional-grade processors which form a "digital core engine", for the highest quality digital audio. These processors provide digital decoding and high-level processing for such critical tasks as MCACC, Dolby/DTS/THX processing, and Hi-Bit Conversion. The VSX-59TXi uses a powerful combination of two Sharc Melody Ultra processors and the Motorola 48- bit/150-MIPS processor; the other three models employ this high-end Motorola processor. All models also contain a high-grade 192kHz/24-bit D-A converter for each of the 8 channels, ensuring that signal purity is maintained from input to output.

Sharc and Motorola Chips

Double-precision 48 bit Motorola DSP

Our Audio Expertise Comes Through Loud And Clear

AUDIO SCALER
Employing Pioneer's legendary Legato Link and Hi-Bit technologies, the Audio Scaler adds an exciting new level of realism. It dramatically improves the sound quality from CDs, DVDs, and PC audio — approaching the extended frequency and wide dynamic range of DVD-Audio. (All models)

ADVANCED CONNECTIVITY AND CONTROL
All Elite receivers provide a wide range of digital inputs and outputs. And for unprecedented connectivity and control, these advanced features are found on select models:

i.LINK
High-resolution multi-channel formats such as DVD-Audio and SACD contain far more data than regular CDs, and they include copy protection encryption as well. For this reason a new interface was needed, and the industry adopted an already-proven digital interface called i.LINK. Pioneer was the first to apply this advanced technology to both DVD players and A/V receivers. i.LINK actually streamlines your connections: what used to take up to six separate cables to achieve, i.LINK handles with one single wire. It also enables two-way communication between components, so control data and other messages can be sent back and forth. Plus, with Pioneer's unique PQLS (Precision Quartz Lock System), i.LINK provides jitter-free transmission of CD, DVD-Audio, and SACD between i.LINK-capable components.
(VSX-59TXi, VSX-56TXi)

MULTI-SOURCE
You're listening to FM, but your kids want to watch a new DVD. Or, two family members want to hear different CDs — in two different rooms. Multi-Room and Multi-Source let you watch and hear what you want, where you want. You can control components from anywhere in the home and merge them with your full A/V system. For added flexibility, the surround back amps on the VSX-59TXi, VSX-56TXi, and VSX-54TX can be used to provide power and control for an additional source. (All models)

USB PLUG AND PLAY
The USB audio port allows you to hook up a PC and listen to 2-channel soundtracks (VSX-56TXi) and multi-channel audio (VSX-59TXi) from your computer. It supports Windows® 98, Windows® 2000, Windows® Me, and Windows® XP operating systems.
(VSX-59TXi, VSX-56TXi)

RS232 PORT
This interface enables connection to 3rd party add-on controllers for building an entire home automation system. It also allows you to connect a PC to the VSX–59TXi and VSX–56TXi and then view and print 3–D graphics of your room's acoustics. (VSX-59TXi, VSX-56TXi, VSX-54TX, VSX-52TX)

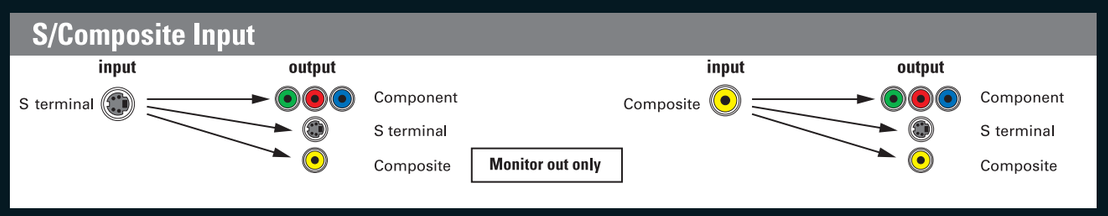
SR AND SR+ PORTS
For convenience and easy installation, all Elite models provide "SR" in/out ports for controlling several connected Pioneer components though one component, using one remote. For example, you can use a Pioneer plasma's remote and infrared receptor to command a Pioneer receiver, CD player, and DVD player. The VSX-52TX features an advanced version, called "SR+", enabling it to display receiver information such as volume level and surround mode on a connected Pioneer plasma screen.

INFRARED IN/OUT PORTS
The VSX-56TXi, VSX-54TX, and VSX-52TX also provide infrared in/out ports that are compatible with other brands' remote controls. This feature allows you to control components that are hidden away; you simply point the remote at a small infrared repeater that passes on commands to the component itself. As a step-up feature, the VSX-59TXi has designated in/out ports for multi-room/multi-source control.

12V TRIGGERS
For convenience, all Elite receivers can be connected to select electrical appliances, enabling you to perform such tasks as dimming the lights and closing the blinds via the receiver's remote control.

WIDE-BAND VIDEO COMPONENT SWITCHING
Elite receivers are equipped with wide-band (100MHz) video component switching, for the highest quality video transmission. To simplify your connections, Elite receivers can convert an S-video or composite signal from your video source into a component video signal out to your TV. Or, S-video and composite signals can be converted to each other, or merely output in their original format.

EASY SET-UP AND OPERATION
An intuitive on-screen GUI assists with setup, guiding you through such tasks as assigning digital inputs and setting up key features. MCACC customizes your speaker system for your media room. i.LINK enables high-resolution digital audio transmission with a single wire and no signal loss. Elite receivers also feature easy-to-read displays, intuitive remote controls, and even an LCD remote with the VSX-59TXi (touch-pad type), VSX–56TXi, and VSX-52TX. It's a level of convenience that matches the receivers' high performance.



HOME THEATER SOUND
Different movies are encoded with different surround sound technologies, and a high-end receiver must be able to decode them all with power and precision.

THX THEATER SOUND REPRODUCTION
THX was created to achieve maximum accuracy of movie sound in the home, and all Elite receivers pass the extremely rigorous THX certification standards. Currently there are two certification levels that an A/V receiver may attain: THX Ultra2 (featured in the VSX-59TXi) ensures optimal playback of all multi-channel music and movie formats; THX Select (VSX-56TXi, VSX-54TX, and VSX–52TX) is more suited to the size and listening distances of the average TV room.

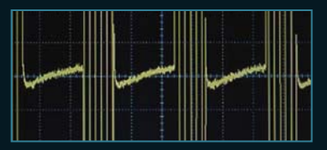
THE LATEST SURROUND TECHNOLOGY
All Elite receivers feature not only the standard surround formats (Dolby Digital, DTS) but also the latest surround technologies. This includes Dolby Digital EX; DTS-ES, which adds a surround back channel to the regular 5.1 channels; and DTS NEO:6, for 6.1-channel sound reproduction. They also offer Dolby Pro Logic IIx, which decodes a Dolby Surround, Dolby Digital, or Dolby Digital EX signal and extends it to 7.1-channel surround playback. It's the most natural, full-range 7.1-channel surround listening experience available.

ADVANCED SURROUND
Want maximum impact from your movies and music? Advanced Surround delivers. This Pioneer-exclusive Digital Sound Processing (DSP) feature brings a new dimension to home entertainment with two key modes. Advanced Cinema is perfect for in-your-face movie soundtracks. Advanced Concert creates virtual sonic environments (such as Chamber and Hall), and includes 5- or 7-Channel Stereo (aka "Party Mode"), which distributes music equally to all your system's speakers, for maximum impact. (All models)

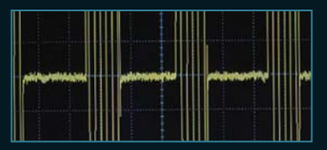
MOSFET

MOSFET AMPLIFICATION
For optimal performance, all Elite receivers are equipped with Pioneer's exclusive Advanced Direct Energy (A.D.E.) MOSFET power device, ideal for high-end audio. The combination of this device and an AC/DC isolated amplifier module yields exceptional stability and ultra-linear amplification, combined with very low signal loss. It's also a very energy-efficient design, minimizing power imbalances that can cause unnecessary distortion in the sound stage.

Idle Current (DRAIN Current) Change with Tone Burst Wave Input



General Circuitry Design



A.D.E. MOSFET + AC/DC Isolated Amplifier

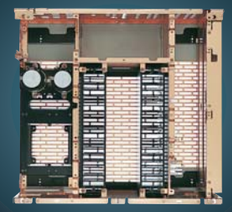
AMPLIFICATION CAPACITORS
Action movies. Video games. Live sports. Rock concerts. They all have critical moments where things suddenly explode into over-the- top sonic mayhem. When that happens, your receiver needs to have some power in reserve, or the impact is lost. For this reason, all Elite receivers utilize large, audiophile-quality electrolytic capacitor pairs and a heavy-duty power transformer, ensuring maximum performance during peak demand.

Power Supply

ADVANCED CONSTRUCTION TECHNIQUES

3-D SPACE FRAME AND ISOLATED CHAMBER
Unlike regular receivers' 2-D chassis design, our revolutionary 3-D space frame construction provides superb physical strength. Also, each receiver is divided with insulating shields into three blocks: the digital processor, the power- & pre-amplifier, and the power supply sections. This construction design serves two purposes: it prevents the digital circuits from affecting the analog circuits, and it increases the rigidity of the cabinet structure. As a result, sound reproduction from any source is more accurate and imaging is improved.

3D Space Frame Construction



SYMMETRICAL POWER TRAIN DESIGN
Accurate multi-channel sound reproduction is possible only when the operating environment is physically, magnetically, and electronically identical for all channels. For that reason, Elite receivers' power output devices for each channel are symmetrically mounted on a pair of rigid heat sinks, with the device for the center channel mounted directly in between.

ELITE

PureVision Display

	PRO-1120HD	PRO-920HD	PRO-1410HD
Display			
Display Size	50 inches	43 inches	61 inches
Aspect Ratio	16:9	16:9	16.9
Number of Pixels	1280 x 768	1024 x 768	1365 x 768
Technical Features			
HDTV	Television	Television	Monitor
DCR	Yes	Yes	
ATSC Tuner	Yes	Yes	No
Pure Drive Processing	Yes	Yes	–
PureCinema	Advanced w/ 3:3 pulldown	Advanced w/ 3:3 pulldown	Advanced w/ 2:3 pulldown
Encased Cell Structure	Deep	Deep	Yes
Black Stripe Coating	Yes	Yes	Yes
3 Dimensional Y/C Separation	Yes	Yes	Yes
Colour Filter	First Surface Pure Colour Filter	First Surface Pure Colour Filter	CCF (Capsulated Colour Filter)
Colour Temperature Control (Pre Setting)	(High/Mid-High/ Mid/Mid-low/Low)	(High/Mid-High/ Mid/Mid-low/Low)	(High/Mid-High/ Mid/Mid-low/Low)
Colour Temperature Control (Manual) Setting	R High	R High	R High
	G High	G High	G High
	B High	B High	B High
	R Low	R Low	R Low
	G Low	G Low	G Low
	B Low	B Low	B Low
MPEG NR	Yes (Off/High/Mid/Low)	Yes (Off/High/Mid/Low)	–
DNR	Yes (Off/High/Mid/Low)	Yes (Off/High/Mid/Low)	Yes (Off/High/Mid/Low)
Gamma Control	–	–	Yes (4 step)
DRE (Dynamic Range Expander)	Yes (Off/High/Mid/Low)	Yes (Off/High/Mid/Low)	–
Colour Management System	R/Y/G/C/B/M independent	R/Y/G/C/B/M independent	R/Y/G/C/B/M independent
Digital CTI (Colour Transient Improvement)	Yes (On/Off)	Yes (On/Off)	–
Natural Resize	Yes	Yes	Yes
Natural Enhancer	Yes	Yes	Yes
Digital Chroma Decoder	Yes (10bit)	Yes (10bit)	Yes
Conveniences			
Selectable Screen Modes	5	5	6
ISF Mode	Yes	Yes	Yes
Surround	SRS/Focus/TruBass	SRS/Focus/TruBase	–
PC Screen Adjustment	Yes	Yes	Yes
Remote Control Unit	SR Compatible	SR Compatible	Yes
Terminals			
Antenna Input	F type connectorx2	F type connectorx2	–
Antenna Output	1	1	–
AV Input (Front)	1 (Gold)	1 (Gold)	–
AV Input (Rear)	2 (Gold)	2 (Gold)	1 BNC, 2RCA
Monitor Output	1 (Gold)	1 (Gold)	–
S Video Input (Front)	1 (Gold)	1 (Gold)	–
S Video Input (Rear)	2 (Gold)	2 (Gold)	1
S Video Output (Rear)	1 (Gold)	1 (Gold)	–
Component Input (Front)	1 (Gold)	1 (Gold)	–
Component Input (Rear)	2 (Gold)	2 (Gold)	1 BNC/2 RCA
D-Sub15 Input (Front)	1 (For PC)	1 (For PC)	–
D-Sub15 Input (Rear)	–	–	1
D-Sub15 Output	–	–	–
SR IN/OUT	Yes (OUT=SR+)	Yes (OUT=SR+)	–
RS-232C	Yes	Yes	Yes
Digital Audio Output (Rear)	Yes	Yes	–
i.LINK	Yes	Yes	–
VCR Control	1	1	–
HDMI Input	2(with HDCP)	2(with HDCP)	1(with HDCP)
HDMI Output	–	–	–
Analog Terrestrial			
CH Selection System	PLL Synthesizer	PLL Synthesizer	–
Receiving Channel	VHF2-13 UHF14-69 CATV1-125	VHF2-13 UHF14-69 CATV1-125	–
Digital Terrestrial			
CH Selection System	PLL Synthesizer	PLL Synthesizer	–
Demodulator	8 VSB	8 VSB	–
Video Decoding System	MPEG2 MP@HL	MPEG2 MP@HL	–
Audio Decoding System	MPEG2 AC3	MPEG2 AC3	–
Receiving Channel	VHF2-13	VHF2-13	–
	UHF14-69	UHF14-69	–
	CATV1-135	CATV1-135	–
Miscellaneous			
Power Requirements	AC 120 V, 60Hz	AC 120 V, 60Hz	AC 120 V, 50/60Hz
Power Consumption (panel only)	363 W	298 W	540 W
Panel and Media Receiver Power Consumption	406.3 W	341.3 W	–
Dimensions (W x H x D) without packaging			
Panel	50" x 29" x 3 ⅞"	44 ¼" x 25 ⁹⁄₁₆" x 3 ⅛"	59 ½" x 35 ⅝" x 5"
Media Receiver	16 ⅜" x 3 ⅜" x 11 ¹⁵⁄₁₆"	16 ⅜" x 3 ⅜" x 11 ¹⁵⁄₁₆"	–
Speakers	4 ¼" x 29" x 2 ⅜"	4 ½" x 25 ⁹⁄₁₆" x 2 ⅜"	–
Weight without packaging	99 lbs. 14 oz.	83 lbs. 6 oz.	149 lbs. 9 oz.

DVD Compatible Players

	DV-59AVi	DV-47Ai	DV-45A
Digital Audio Specific			
THD	0.0008%	0.0009%	0.001%
Frequency Response: 48kHz	4-22kHz	4-22kHz	4-22kHz
Frequency Response: 96kHz	4-44kHz	4-44kHz	4-44kHz
Frequency Response: 192kHz	4-88kHz	4-88kHz	4-88kHz
S / N	118dB	118dB	118dB
Dynamic Range	108.8dB	108dB	108dB
Conveniences			
Setup Navigator	Yes	Yes	Yes
Glow-in-the-Dark Remote Control	Yes (Jog / Joy)	Yes (Jog / Joy)	Yes (Jog / Joy)
TV Controls with Manufacturers Preset Codes	Yes	Yes	Yes
Special Play Function			
Resume Function	Yes	Yes	Yes
Repeat Mode (All, Title / Chapter / Track /Group / Folder, A-B)	Yes	Yes (all: CD,VCD, SACD, MP3 only)	Yes (all: CD,VCD, SACD, MP3 only)
(CD / Track,SACD / Track, Video / Chapter & Title, DVD-Audio /Group and Track, MP3 / Folder & Track)	Yes	Yes	Yes
Trick Play Processor for Smooth Scanning	Yes	Yes	–
Still / Step Play	Yes	Yes	Yes
Slow Play (Forward / Reverse)	Yes	Yes	Yes
Random Play	Yes	Yes	Yes
Scan Functions			
10-Key Direct Search and Play (Chapter / Track)	Yes	Yes	Yes
Title Search / Track / Time Search	Yes	Yes	Yes
Display			
Graphic User Interface (GUI)	Yes	Yes	Yes
On-Screen Information Display	Yes	Yes	Yes
On-Screen Bit Rate Meter	Yes	Yes	Yes
Film (24 frame/s material indicator (# Indicator)	Yes	Yes	Yes
Video Frame Number Display	Yes	Yes	Yes
FL Display Off	Yes(Pure Audio)	Yes(on RCU)	–
Video Terminals			
HDMI Outputs	1	-	-
Component Video Output (Gold Plated)	1	1	1
S-Video Outputs (Gold Plated)	2	2	1
Composite Video Outputs (Gold Plated)	2	2	1
Parallel Composite, S-Video, Component Output	Yes	Yes	Yes (Interlace) / None (Progressive)
Audio Terminals			
Analog Audio Output / In (L / R) (Gold Plated)	1 Out	1 Out	1 Out
6 Channel Audio Output	Yes	Yes	Yes
Coaxial Digital Output (Dolby Digital,DTS, LPCM)	1	1	1
Optical Digital Output (Dolby Digital,DTS, LPCM)	1	1	1
Digital Audio Output (i.LINK) Connection	2	2	–
Control Terminals			
Pioneer System Remote (SR)	In / Out	In / Out	In / Out
Miscellaneous			
AC Inlet	Yes (form: hexagon type)	Yes (form: hexagon type)	Yes (standard type)
DVD-RW Playback Compatibility	Yes (CPRM)	Yes (CPRM)	Yes (CPRM)
Power Requirements	120V, 60Hz	120V, 60Hz	120V, 60Hz
Power Consumption	18W	14W	13W
Dimensions (W x H x D) without Packaging	16 ⅜" x 4 ⅝" x 10 ⁵⁄₁₆"	16 ¾" x 4 ⅛" x 11 ⅛"	16 ⅛" x 2 ¾" x 11"
Weight without Packaging	12 lbs. 2 oz.	11 lbs. 3 oz.	5 lbs. 12 oz.

When playing DTS-encoded(CDs,LDs,DVDs),excessive noise will be exhibited from the analog stereo outputs. To avoid possible damage to the audio system, the consumer should take proper pre-cautions when the analog stereo outputs of the DVD player is connected to an amplification system. To enjoy DTS Digital Surround TM playback, an external 5.1 channel DTS Digital Surround TM decoder system must be connected to the digital output (S/PDIF,AES/EBU, or TosLink) of the DVD player.

DVD players and DVD Discs have Regional Code Classifications that determine their market area and compatibility. Discs and players must have matching codes in order to be played. All DVD players featured in this catalog are classed as Regional Code 1. Some discs may not be playable due to different recording formats or physical condition of the disc at the time of recording and playback.

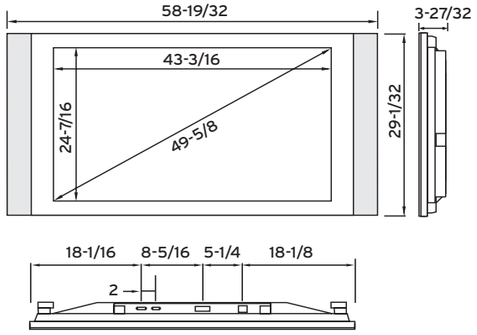
	VSX-59TXi	VSX-56TXi	VSX-54TXi	VSX-52TX
Amplifier Design and Power Output				
Direct Energy MOS Amplifiers	Advanced D.E. Mos FET	Advanced D.E. Mos FET	Advanced D.E. Mos FET	Advanced D.E. Mos FET
High Current/Voltage Power Supply	Yes	Yes	Yes	–
Extra Large Extruded Aluminum Heat Sink	Chimney	–	–	–
Direct Construction	Yes	Yes	Yes	Yes
Transformer Stabilizer	Yes	Yes	Yes	Yes
Audiophile Copper Upgrades	Yes	–	–	–
Stereo	160W / ch @ 6Ω	110W / ch @ 8Ω	110W / ch @ 8Ω	110W / ch @ 8Ω
Surround Modes				
Front (x 2)	160W / ch @ 6Ω	110W / ch @ 8Ω	110W / ch @ 8Ω	110W / ch @ 8Ω
Center	160W / ch @ 6Ω	110W / ch @ 8Ω	110W / ch @ 8Ω	110W / ch @ 8Ω
Rear (x 2)	160W / ch @ 6Ω	110W / ch @ 8Ω	110W / ch @ 8Ω	110W / ch @ 8Ω
Audio Features				
M.C.A.C.C	Advanced	Advanced	Advanced	Standard
THX	Ultra II	Select	Select	Select
Dolby Digital 5.1	Yes	Yes	Yes	Yes
Dolby Digital EX 6.1	Yes	Yes	Yes	Yes
DTS 5.1	Yes	Yes	Yes	Yes
DTS-ES 6.1	Discrete	Discrete	Discrete	Discrete
DTS 96/24	Yes	Yes	Yes	Yes
DTS-Neo:6	Yes	Yes	Yes	Yes
Dolby Pro Logic II	PLIIx	PLIIx	PLIIx	PLIIx
DSP Processor	Sharc*2+Motorola	Dual 48-Bit Motorola	Dual 48-Bit Motorola	Dual 48-Bit Motorola
Analog-to-Digital Converters	192/29 (2 ch) 96/24 (7.1 ch)	96/24 (2 ch)	96/24 (2 ch)	96/24 (2 ch)
192k/24-bit Digital-to-Analog Converters	Yes (Advanced)	Yes x 7	Yes x 7	Yes x 7
Advanced Multi-Channel Sound Processing	7.1 or 5.1 Channel	7.1 or 5.1 Channel	7.1 or 5.1 Channel	7.1 or 5.1 Channel
Advanced Theater and Midnight Modes	Yes	Yes	Yes	Yes
Music & Movie DSP Modes	Yes	Yes	Yes	Yes
Multi-Channel Stereo	5 or 7 channel	5 or 7 channel	5 or 7 channel	5 or 7 channel
Digital Noise Reduction	5 or 7 channel	5 or 7 channel	5 or 7 channel	–
Main Channel Balance	Electric	Electric	Electric	Electric
Loudness	Yes	Yes	Yes	Yes
Source Direct Switch	Yes	Yes	Yes	Yes
Remote Control Muting	Yes	Yes	Yes	Yes
Tuner Presets	30	30	30	30
Conveniences				
Graphic User Interface (On-Screen Display)	Yes w/overlay	Yes w/overlay	Yes w/o overlay	Yes w/o overlay
Front Panel Menu Control	–	Yes	Yes	Yes
2-Line Dot Matrix Display	Yes	Yes	Yes	1 Line
FL Dimmer	4-step	4-step	4-step	4-step
Multi-Operation System (Macros)	13 Macros 256 Steps	7 Macros 5 Steps	10 Macros 5 Steps	–
Remote Control Type	LCD Touch Panel	Small LCD	Smart	Small LCD
Pre-Programmed & Smart Remote	Yes	Yes	Yes	Yes
Remote Control Illumination	LCD Back Light	LCD / All Keys	–	LCD
DVD, DSS, DTV, Multi-CD Control	Yes	Yes	Yes	Yes
Component Video Conversion	Yes	Yes	Yes	Yes
Video Signal Selector	Yes	Yes	Yes	–
Function Rename	Yes	Yes	Yes	–
Multi-Room / Multi Source	Source/Room	Source/Room	Source/Room	Yes
Fixed or Variable MR/ MS Audio Output	Yes	Yes	Yes	Yes
3rd Party IR Compatibility	Yes w/RS-232	Yes w/RS-232	Yes w/RS-232	Yes w/RS-232
Front Panel Controls	Yes	Yes	Yes	Yes
Multi-Source Functions	Tuner, CD, Tape 1, VCR 1, DVD/LD, TV/Sat			
Terminals				
I.LINK Digital Audio and Control Interface	Yes	Yes	–	–
7.1 Multi-Channel In w/Trim Bypass	Yes w/Trim	Yes w/Trim	Yes w/Trim	Yes
AC-3 RF Input (with Internal Demodulator)	Yes	–	–	–
Digital Inputs (assignable)	7	5	5	5
Coaxial	3	2	2	2
Optical	5 (incl.Front in)	3 (incl.Front in)	3 (incl.Front in)	3 (incl.Front in)
Digital Output (Optical)	2	2	2	1
Audio (TUNER Included)/ Video Input	5A/7AV	5A/5AV	5A/5AV	3A/5AV
Phono Input	Yes	Yes	–	–
Audio/Video Outputs	2A / 3AV	2A / 2AV	2A / 2AV	1A / 1AV
USB Terminal (use for audio playback)	Yes	Yes	–	–
RS-232c	Yes	Yes	Yes	Yes
Monitor Output (Composite & S-Video)	1C / 2S	1C / 1S	1C / 1S	1C / 1S
S-Video Inputs / Outputs	7/3	5/2	5/2	5/2
Component In / Out	3/1 (assign)	2/1 (assign)	2/1 (assign)	2/1 (assign)
Audio/Video Front Panel input (w/ S-Video)	Yes	Yes	Yes	Yes
Preamp Output	All (7.1 Ch) (SW*2)	All (7.1 Ch)	All (7.1 Ch)	All (7.1 Ch)
Gold-Plated Terminals	All	All	No	No
Multi-Room / Multi-Source				
2nd Zone A/V Output	Yes	Yes	Yes	Yes
2nd Zone IR Control Input	Yes	Yes	Yes	Yes
12 Volt Trigger	Yes	Yes	Yes	Yes
Pioneer System Remote (SR)	In / Out	In / Out SR+	In / Out SR+	In / Out SR+
Speaker Terminal Type	Banana x 9 ch	Banana x 7 ch	Banana x 7 ch	Banana x 7 ch
AC Outlets	1	1	1	1
Other				
Control Door Design	Yes	Yes	Yes	Yes
Function Indicator LED	Yes	–	–	–
Copper Shielded Chassis	Yes	–	–	–
Heavy Duty Power Cord	Yes	Yes	–	–

	VSX-59TXi	VSX-56TXi	VSX-54TXi	VSX-52TX
Amplifier Section				
Continuous Power Output	Cont. Avg. power output of 160watts* per channel, min., at 6ohms (150 watts at 8 ohms) from 20Hz–20kHz with no more than 0.09%**THD	Cont. Avg. power output of 110watts* per channel, min., at 8ohms from 20Hz–20kHz with no more than 0.09%**THD	Cont. Avg. power output of 110watts* per channel, min., at 8ohms from 20Hz–20kHz with no more than 0.09%**THD	Cont. Avg. power output of 110watts* per channel, min., at 8ohms from 20Hz–20kHz with no more than 0.09%**THD
Surround				
Front Channels	160W+160W	110W+110W	110W+110W	100W+100W
Center Channel	160W	110W	110W	110W
Surround Channels	160W+160W	110W+110W	110W+110W	110W+110W
Surround Back Channels	160W+160W	110W+110W	110W+110W	110W+110W
Condition	20Hz–20kHz 0.09% 6 ohms	20Hz–20kHz 0.09% 8 ohms	20Hz–20kHz 0.09% 8 ohms	20Hz–20kHz 0.09% 8 ohms
Input				
Phono MM	4.7mV/47k	4.7mV/47k	–	–
Sensitivity/Impedance				
Other	382mV/47k	382mV/47k	335mV/47k	335mV/47k
Output Level/Impedance	382mV/2.2k	382mV/2.2k	335mV/2.2k	335mV/2.2k
Frequency Response				
Phono MM (RIAA Equalization)	20Hz–20kHz±0.3dB	20Hz–20kHz±0.3dB	–	–
Other	5Hz–100kHz +0-3dB	5Hz–100kHz +0-3dB	5Hz–100kHz +0-3dB	5Hz–100kHz +0-3dB
Signal to Noise Ratio (IHF'66/EIA)				
Phono/MM	86dB/83dB	–	–	–
Other	105dB/93dB	101dB/83dB	101dB/83dB	101dB/83dB
Video				
Input Sensitivity	1Vp–p/75	1Vp–p/75	1Vp–p/75	1Vp–p/75
Output Lev/Imp	1Vp–p/75	1Vp–p/75	1Vp–p/75	1Vp–p/75
Frequency Response	5Hz–10MHz+0dB–3dB	5Hz–10MHz+0dB–3dB	5Hz–10MHz+0dB–3dB	5Hz–10MHz+0dB–3dB
S/N	70dB	65dB	65dB	65dB
Component Video				
Frequency Response	5Hz-100Hz+3db	5Hz-100Hz+3db	5Hz-100Hz+3db	5Hz-100Hz+3db
Input Sensitivity	1Vpp/75	1Vpp/75	1Vpp/75	1Vpp/75
Output Lev/Imp	1Vpp/75	1Vpp/75	1Vpp/75	1Vpp/75
S/N	70	65	65	65
FM Tuner				
Usable Sensitivity (Mono)	13.2dBf,IHF(1.3V/75)	13.2dBf,IHF(1.3V/75)	13.2dBf,IHF(1.3V/75)	13.2dBf,IHF(1.3V/75)
50dB Quiet Sensitivity (Mono/Stereo)	20.2dBf/38.6dBf	20.2dBf/38.6dBf	20.2dBf/38.6dBf	20.2dBf/38.6dBf
Signal to Noise Ratio (Mono/Stereo)	73dB/70dB(at85dBf)	73dB/70dB(at85dBf)	73dB/70dB(at85dBf)	73dB/70dB(at85dBf)
Distortion Stereo 1kHz	0.50%	0.50%	0.50%	0.50%
Alternative Channel Selectivity	60dB(400kHz)	60dB(400kHz)	60dB(400kHz)	60dB(400kHz)
Stereo Separation	40dB(1kHz)	40dB(1kHz)	40dB(1kHz)	40dB(1kHz)
Frequency Response	30Hz–15kHz±1 B	30Hz–15kHz±1 dB	30Hz–15kHz±1 B	30Hz–15kHz±1 B
Antenna Input	75 Unbalanced	75 Unbalanced	75 Unbalanced	75 Unbalanced
AM Tuner				
Sensitivity (IHF, Loop Antenna)	350 µV/m	350 µV/m	350 µV/m	350 µV/m
Selectivity	25dB	25dB	25dB	25dB
Signal to Noise Ratio	50dB	50dB	50dB	50dB
Antenna	Loop Antenna	Loop Antenna	Loop Antenna	Loop Antenna
Miscellaneous				
Power Require	AC120V, 60Hz	AC120V, 60Hz	AC120V, 60Hz	AC120V, 60Hz
Power Consumption	735W	600W	600W	480W
PC Stand-by	0.65W	0.8w	0.8w	.43 W
Dimensions	17 ⅛" x 8" x 18 ¾"	16 ⅛" x 7 ⅛" x 18 ⅛"	16 ⅛" x 7 ⅛" x 18 ⅛"	16 ⅛" x 7 ⅛" x 18 ⅛"
Weight	68lbs. 6oz.	44lbs. 8oz.	39lbs. 7oz.	34lbs. 2oz.

*Measured pursuant to the Federal Trade Commission's Trade Regulation Rule of power output claims for amplifiers **Note: The impedance indicated in the specification are actual values that speakers can present to an amplifier during play back of music/movies. They do not refer to the nominal rated impedance of the speakers you use.

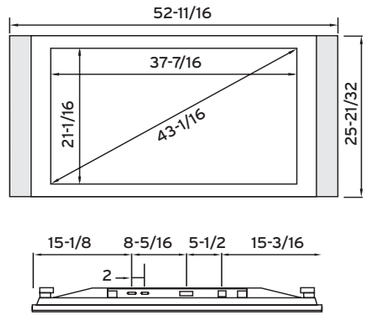
PR0-1120HD

● with speakers attached to sides

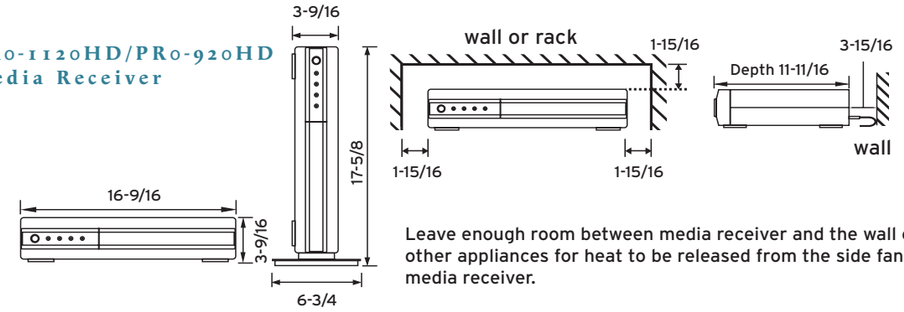


PR0-920HD

● with speakers attached to sides

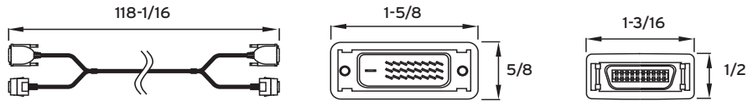


PR0-1120HD/PR0-920HD Media Receiver

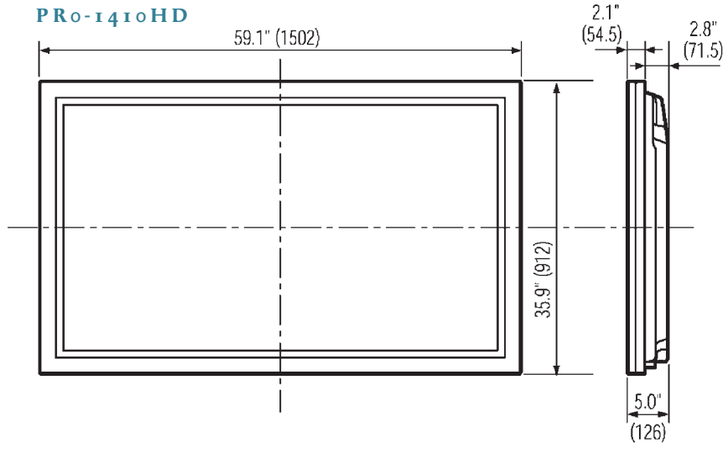


Leave enough room between media receiver and the wall or other appliances for heat to be released from the side fan of media receiver.

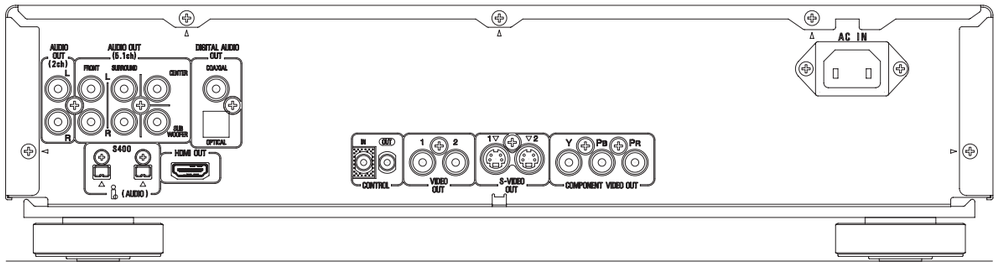
Allow for 100mm additional clearance behind unit for cable



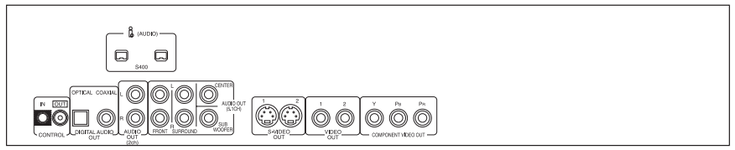
PR0-1410HD



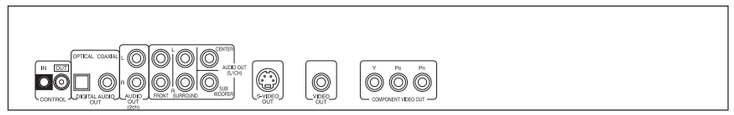
DV-59AVi



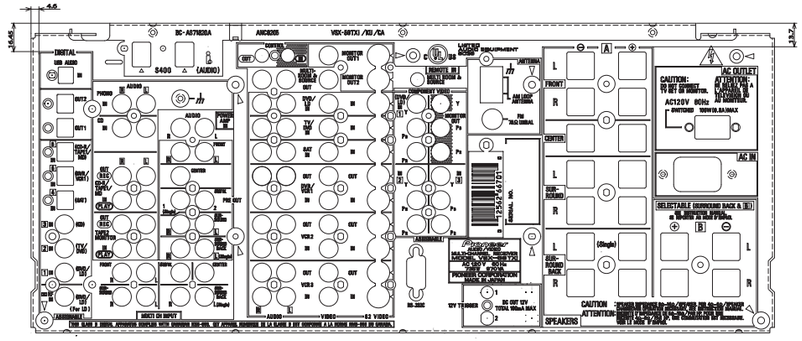
DV-47Ai



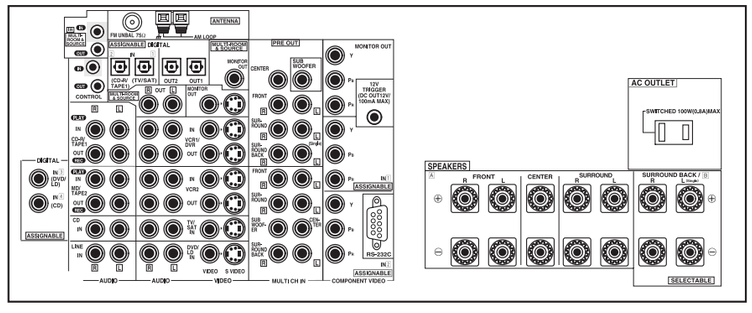
DV-45A



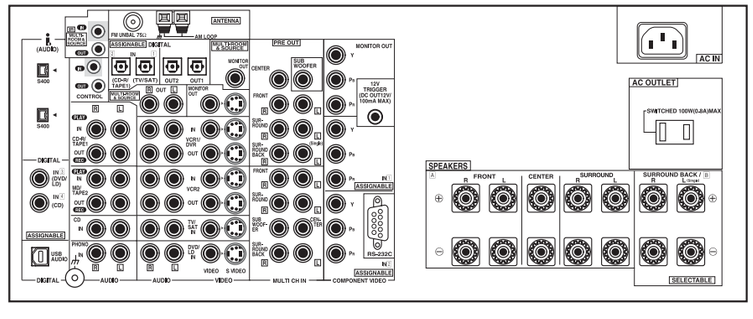
VSX-59TXi



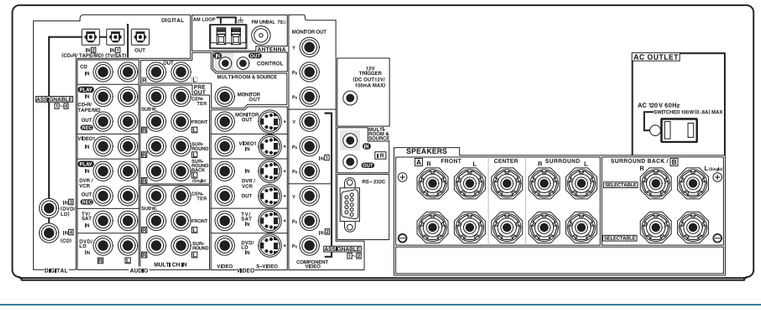
VSX-54TX



VSX-56TXi



VSX-52TX



PureVision Plasma Accessories

PDK-1012

Table-Top Stand

(Compatible with PRO-920HD & PRO-1120HD)

PDK-1014

Table-Top Stand
For PRO-1410HD (Not shown)

PDP-S24-LR

Speakers For Pro-920HD

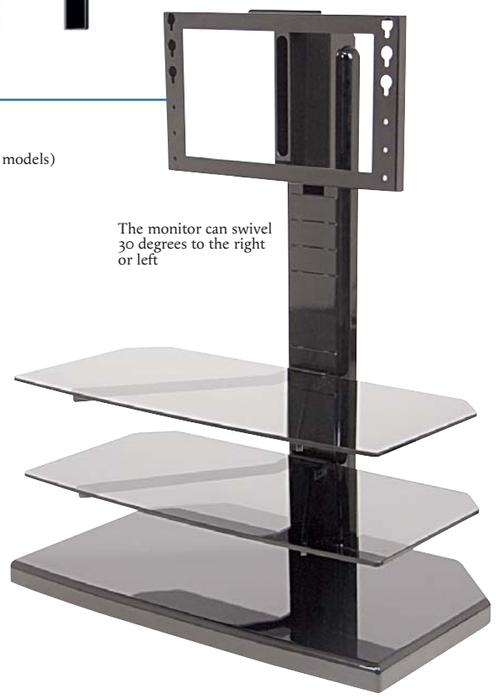
PDP-S23-LR

Speakers For Pro-1120HD

RA-E1011

Floating Floor Stand
With Swivel

(Compatible with 43" and 50" models)



The monitor can swivel 30 degrees to the right or left

PDA-H03

Extension Cable

10-meter coaxial extension cable
30-meter cable available (not shown)

PWM-6121 Tilt (61")

Wall Bracket

(Compatible with 61" Model Only) (Not shown)

PWM-6111 Flat (61")

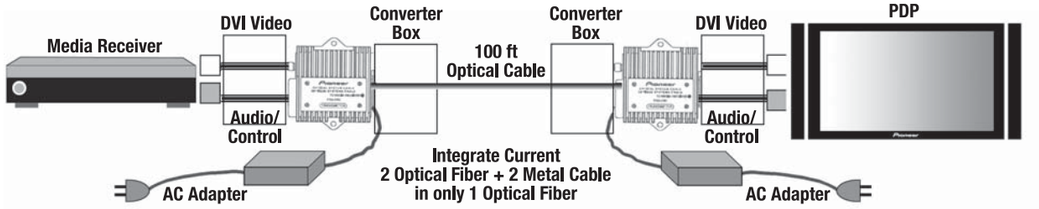
Wall Bracket

(Compatible with 61" Model Only) (Not shown)

PDA-H05

Fiber-Optic Extension System

Please refer to the Wall Bracket Installation Manual for proper installation instructions and safety precautions.

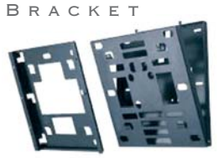


PSM-V501F (43" and 50")

Wall Bracket

PSM-V501T (43" and 50")

Angled Wall Bracket



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